Gavin Hugh Thomas

List of Publications by Year
in descending order

133 papers	7,189 citations	87888 38 h-index	60623 81 g-index
144 all docs	144 docs citations	144 times ranked	9088 citing authors

#	Article	IF	Citations
1	The structural basis for highâ€affinity uptake of ligninâ€derived aromatic compounds by proteobacterial TRAP transporters. FEBS Journal, 2022, 289, 436-456.	4.7	3
2	Microbial Musings â€“ November 2021. Microbiology (United Kingdom), 2022, 167, .	1.8	0
3	Antibiotic-functionalized gold nanoparticles for the detection of active Î²-lactamases. Nanoscale Advances, 2022, 4, 573-581.	4.6	6
4	Diverse functions for acyltransferase-3 proteins in the modification of bacterial cell surfaces. Microbiology (United Kingdom), 2022, 168, .	1.8	6
5	Reference-Grade Genome and Large Linear Plasmid of Streptomyces rimosus: Pushing the Limits of Nanopore Sequencing. Microbiology Spectrum, 2022, 10, e0243421.	3.0	5
6	Multi-omic based production strain improvement (MOBpsi) for bio-manufacturing of toxic chemicals. Metabolic Engineering, 2022, 72, 133-149.	7.0	6
7	Improved furfural tolerance in <i>Escherichia coli</i> mediated by heterologous NADH-dependent benzyl alcohol dehydrogenases. Biochemical Journal, 2022, 479, 1045-1058.	3.7	5
8	Microbial Musings â€“ Spring 2022. Microbiology (United Kingdom), 2022, 168, .	1.8	0
9	Triggering Closure of a Sialic Acid TRAP Transporter Substrate Binding Protein through Binding of Natural or Artificial Substrates. Journal of Molecular Biology, 2021, 433, 166756.	4.2	10
10	Microbial Musings â€“ January 2021. Microbiology (United Kingdom), 2021, 167, .	1.8	1
11	Reconstitution and optimisation of the biosynthesis of bacterial sugar pseudaminic acid (Pse5Ac7Ac) enables preparative enzymatic synthesis of CMP-Pse5Ac7Ac. Scientific Reports, 2021, 11, 4756.	3.3	14
12	Microbial Musings â€“ February 2021. Microbiology (United Kingdom), 2021, 167, .	1.8	0
13	Microbial Musings â€“ March 2021. Microbiology (United Kingdom), 2021, 167, .	1.8	0
14	Synthetic biology approaches to actinomycete strain improvement. FEMS Microbiology Letters, 2021, 368, .	1.8	2
15	Microbial Musings â€“ May 2021. Microbiology (United Kingdom), 2021, 167, .	1.8	1
16	Multiple evolutionary origins reflect the importance of sialic acid transporters in the colonization potential of bacterial pathogens and commensals. Microbial Genomics, 2021, 7, .	2.0	12
17	Multi-omics Study of Planobispora rosea, Producer of the Thiopeptide Antibiotic GE2270A. MSystems, 2021, 6, e0034121.	3.8	2
18	Microbial Musings â€“ June 2021. Microbiology (United Kingdom), 2021, 167, .	1.8	0

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19	Microbial Musings â€" July 2021. Microbiology (United Kingdom), 2021, 167, .	1.8	0
20	Microbial Musings â€" August 2021. Microbiology (United Kingdom), 2021, 167, .	1.8	0
21	Bioethanol from autoclaved municipal solid waste: Assessment of environmental and financial viability under policy contexts. Applied Energy, 2021, 298, 117118.	10.1	16
22	Microbial Musings â€" September 2021. Microbiology (United Kingdom), 2021, 167, .	1.8	0
23	Microbial Musings â€" October 2021. Microbiology (United Kingdom), 2021, 167, .	1.8	1
24	Microbial Musings â€" December 2021. Microbiology (United Kingdom), 2021, 167, .	1.8	0
25	Synthesis and biochemical evaluation of cephalosporin analogues equipped with chemical tethers. RSC Advances, 2020, 10, 36485-36494.	3.6	3
26	Biocatalytic Transfer of Pseudaminic Acid (Pse5Ac7Ac) Using Promiscuous Sialyltransferases in a Chemoenzymatic Approach to Pse5Ac7Ac-Containing Glycosides. ACS Catalysis, 2020, 10, 9986-9993.	11.2	10
27	Uncovering a novel molecular mechanism for scavenging sialic acids in bacteria. Journal of Biological Chemistry, 2020, 295, 13724-13736.	3.4	26
28	The molecular basis of thioalcohol production in human body odour. Scientific Reports, 2020, 10, 12500.	3.3	16
29	A Salmochelin S4-Inspired Ciprofloxacin Trojan Horse Conjugate. ACS Infectious Diseases, 2020, 6, 2532-2541.	3.8	19
30	Acetylation of Surface Carbohydrates in Bacterial Pathogens Requires Coordinated Action of a Two-Domain Membrane-Bound Acyltransferase. MBio, 2020, 11, .	4.1	22
31	Robust microorganisms for biofuel and chemical production from municipal solid waste. Microbial Cell Factories, 2020, 19, 68.	4.0	24
32	Synthetic Approaches for Accessing Pseudaminic Acid (Pse) Bacterial Glycans. ChemBioChem, 2020, 21, 1397-1407.	2.6	10
33	MORF: An online tool for exploring microbial cell responses using multi-omics analysis. Access Microbiology, 2020, 2, .	0.5	6
34	Simulating the evolutionary trajectories of metabolic pathways for insect symbionts in the genus Sodalis. Microbial Genomics, 2020, 6, .	2.0	7
35	Microbial Musings â€" May 2020. Microbiology (United Kingdom), 2020, 166, 422-424.	1.8	0
36	Microbial Musings â€" June 2020. Microbiology (United Kingdom), 2020, 166, 498-500.	1.8	1

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37	Microbial Musings â€“ August 2020. Microbiology (United Kingdom), 2020, 166, 680-682.	1.8	0
38	Microbial Musings â€“ November 2020. Microbiology (United Kingdom), 2020, 166, 1004-1006.	1.8	0
39	Microbial Musings â€“ December 2020. Microbiology (United Kingdom), 2020, 166, 1107-1109.	1.8	0
40	Microbial Musings â€“ January 2020. Microbiology (United Kingdom), 2020, 166, 1-3.	1.8	1
41	Microbial Musings â€“ February 2020. Microbiology (United Kingdom), 2020, 166, 93-95.	1.8	0
42	Microbial Musings â€“ March 2020. Microbiology (United Kingdom), 2020, 166, 227-229.	1.8	1
43	Microbial musings â€“ April 2020. Microbiology (United Kingdom), 2020, 166, 332-334.	1.8	0
44	Microbial Musings â€“ July 2020. Microbiology (United Kingdom), 2020, 166, 594-596.	1.8	1
45	The Salmonella enterica serovar Typhimurium virulence factor STM3169 is a hexuronic acid binding protein component of a TRAP transporter. Microbiology (United Kingdom), 2020, 166, 981-987.	1.8	2
46	Microbial Musings â€“ September 2020. Microbiology (United Kingdom), 2020, 166, 794-796.	1.8	0
47	Microbial Musings â€“ October 2020. Microbiology (United Kingdom), 2020, 166, 891-893.	1.8	0
48	Elucidation of a sialic acid metabolism pathway in mucus-foraging Ruminococcus gnavus unravels mechanisms of bacterial adaptation to the gut. Nature Microbiology, 2019, 4, 2393-2404.	13.3	83
49	Surface-Bound Antibiotic for the Detection of Î²-Lactamases. ACS Applied Materials & Interfaces, 2019, 11, 32599-32604.	8.0	7
50	Water Networks Can Determine the Affinity of Ligand Binding to Proteins. Journal of the American Chemical Society, 2019, 141, 15818-15826.	13.7	98
51	Evolutionary dynamics of membrane transporters and channels: enhancing function through fusion. Current Opinion in Genetics and Development, 2019, 58-59, 76-86.	3.3	9
52	A Tale of Three Species: Adaptation of Sodalis glossinidius to Tsetse Biology, <i>Wigglesworthia</i> Metabolism, and Host Diet. MBio, 2019, 10, .	4.1	23
53	Systems Analyses Reveal the Resilience of Escherichia coli Physiology during Accumulation and Export of the Nonnative Organic Acid Citramalate. MSystems, 2019, 4, .	3.8	9
54	Comprehensive identification of RNAâ€“protein interactions in any organism using orthogonal organic phase separation (OOPS). Nature Biotechnology, 2019, 37, 169-178.	17.5	247

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55	Enhanced functionalisation of major facilitator superfamily transporters via fusion of C-terminal protein domains is both extensive and varied in bacteria. Microbiology (United Kingdom), 2019, 165, 419-424.	1.8	7
56	Antibiotic export: transporters involved in the final step of natural product production. Microbiology (United Kingdom), 2019, 165, 805-818.	1.8	24
57	Part by Part: Synthetic Biology Parts Used in Solventogenic Clostridia. ACS Synthetic Biology, 2018, 7, 311-327.	3.8	17
58	Structural basis of malodour precursor transport in the human axilla. ELife, 2018, 7, .	6.0	34
59	CBMNet: the â€˜Crossing Biological Membranesâ€™ network in industrial biotechnology and bioenergy. Biochemical Society Transactions, 2018, 46, 871-875.	3.4	1
60	Tripartite ATP-Independent Periplasmic (TRAP) Transporters and Tripartite Tricarboxylate Transporters (TTT): From Uptake to Pathogenicity. Frontiers in Cellular and Infection Microbiology, 2018, 8, 33.	3.9	77
61	Massive over-representation of solute-binding proteins (SBPs) from the tripartite tricarboxylate transporter (TTT) family in the genome of the Î±-proteobacterium Rhodoplanes sp. Z2-YC6860. Microbial Genomics, 2018, 4, .	2.0	5
62	PELDOR Spectroscopy Reveals Two Defined States of a Sialic Acid TRAP Transporter SBP in Solution. Biophysical Journal, 2017, 112, 109-120.	0.5	31
63	On the pull: periplasmic trapping of sugars before transport. Molecular Microbiology, 2017, 104, 883-888.	2.5	5
64	Sialic acid acquisition in bacteriaâ€"one substrate, many transporters. Biochemical Society Transactions, 2016, 44, 760-765.	3.4	37
65	Intrinsic challenges in ancient microbiome reconstruction using 16S rRNA gene amplification. Scientific Reports, 2015, 5, 16498.	3.3	153
66	The substrate-binding protein in bacterial ABC transporters: dissecting roles in the evolution of substrate specificity. Biochemical Society Transactions, 2015, 43, 1011-1017.	3.4	115
67	Tripartite ATP-independent Periplasmic (TRAP) Transporters Use an Arginine-mediated Selectivity Filter for High Affinity Substrate Binding. Journal of Biological Chemistry, 2015, 290, 27113-27123.	3.4	38
68	Identification of axillary<i>Staphylococcus</i>sp. involved in the production of the malodorous thioalcohol 3-methyl-3-sufanylhexan-1-ol. FEMS Microbiology Letters, 2015, 362, fnv111.	1.8	34
69	Probing Bacterial Uptake of Glycosylated Ciprofloxacin Conjugates. ChemBioChem, 2014, 15, 466-471.	2.6	6
70	Genome Sequence of the Tsetse Fly (<i>Glossina morsitans</i>): Vector of African Trypanosomiasis. Science, 2014, 344, 380-386.	12.6	254
71	Probing linker design in citric acidâ€"ciprofloxacin conjugates. Bioorganic and Medicinal Chemistry, 2014, 22, 4499-4505.	3.0	21
72	A different path: Revealing the function of staphylococcal proteins in biofilm formation. FEBS Letters, 2014, 588, 1869-1872.	2.8	34

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73	Staphyloferrin A as siderophore-component in fluoroquinolone-based Trojan horse antibiotics. Organic and Biomolecular Chemistry, 2013, 11, 3461.	2.8	66
74	Transport and catabolism of the sialic acids<i>N-</i>glycolylneuraminic acid and 3-keto-3-deoxy-<scp>d</scp>-glycero-<scp>d</scp>-galactonononic acid by<i>Escherichia coli</i>K-12. FEMS Microbiology Letters, 2013, 347, 14-22.	1.8	25
75	The Effects of Methionine Acquisition and Synthesis on Streptococcus Pneumoniae Growth and Virulence. PLoS ONE, 2013, 8, e49638.	2.5	60
76	Waste not, want not: Nitrogen recycling by metabolic pathways shared between an animal and its symbiotic bacteria. Biochemist, 2013, 35, 20-24.	0.5	1
77	MpaA is a murein-tripeptide-specific zinc carboxypeptidase that functions as part of a catabolic pathway for peptidoglycan-derived peptides in Î³-proteobacteria. Biochemical Journal, 2012, 448, 329-341.	3.7	12
78	The central role of the host cell in symbiotic nitrogen metabolism. Proceedings of the Royal Society B: Biological Sciences, 2012, 279, 2965-2973.	2.6	75
79	The VC1777â€“VC1779 proteins are members of a sialic acid-specific subfamily of TRAP transporters (SiaPQM) and constitute the sole route of sialic acid uptake in the human pathogen Vibrio cholerae. Microbiology (United Kingdom), 2012, 158, 2158-2167.	1.8	25
80	The Membrane Proteins SiaQ and SiaM Form an Essential Stoichiometric Complex in the Sialic Acid Tripartite ATP-independent Periplasmic (TRAP) Transporter SiaPQM (VC1777â€“1779) from Vibrio cholerae. Journal of Biological Chemistry, 2012, 287, 3598-3608.	3.4	46
81	Sialic acid utilization by the soil bacteriumCorynebacterium glutamicum. FEMS Microbiology Letters, 2012, 336, 131-138.	1.8	21
82	Synthesis of the complete series of mono acetates of N-acetyl-<scp>d</scp>-neuraminic acid. Organic and Biomolecular Chemistry, 2012, 10, 529-535.	2.8	9
83	Genetic and metabolic determinants of nutritional phenotype in an insect-bacterial symbiosis. Molecular Ecology, 2011, 20, 2073-2084.	3.9	60
84	Tripartite ATP-independent periplasmic (TRAP) transporters in bacteria and archaea. FEMS Microbiology Reviews, 2011, 35, 68-86.	8.6	190
85	Compensating Stereochemical Changes Allow Murein Tripeptide to Be Accommodated in a Conventional Peptide-binding Protein. Journal of Biological Chemistry, 2011, 286, 31512-31521.	3.4	33
86	On sialic acid transport and utilization by Vibrio cholerae. Microbiology (United Kingdom), 2011, 157, 3253-3254.	1.8	10
87	Characterization of a novel sialic acid transporter of the sodium solute symporter (SSS) family and in vivo comparison with known bacterial sialic acid transporters. FEMS Microbiology Letters, 2010, 304, 47-54.	1.8	44
88	Genomic insight into the amino acid relations of the pea aphid, <i>Acyrthosiphon pisum</i>, with its symbiotic bacterium <i>Buchnera aphidicola</i>. Insect Molecular Biology, 2010, 19, 249-258.	2.0	219
89	Genomic evidence for complementary purine metabolism in the pea aphid, <i>Acyrthosiphon pisum</i>, and its symbiotic bacterium <i>Buchnera aphidicola</i>. Insect Molecular Biology, 2010, 19, 241-248.	2.0	46
90	Homes for the orphans: utilization of multiple substrate-binding proteins by ABC transporters. Molecular Microbiology, 2010, 75, 6-9.	2.5	26

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91	Genome Sequence of the Pea Aphid Acyrthosiphon pisum. PLoS Biology, 2010, 8, e1000313.	5.6	913
92	Caught in a TRAP: substrate-binding proteins in secondary transport. Trends in Microbiology, 2010, 18, 471-478.	7.7	54
93	The substrate-binding protein imposes directionality on an electrochemical sodium gradient-driven TRAP transporter. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 1778-1783.	7.1	93
94	<i>Echo</i>LOCATION: an <i>in silico</i> analysis of the subcellular locations of <i>Escherichia coli</i> proteins and comparison with experimentally derived locations. Bioinformatics, 2009, 25, 163-166.	4.1	27
95	Screening of <i>Streptococcus pneumoniae</i> ABC Transporter Mutants Demonstrates that LivJHMGF, a Branched-Chain Amino Acid ABC Transporter, Is Necessary for Disease Pathogenesis. Infection and Immunity, 2009, 77, 3412-3423.	2.2	76
96	Evolutionary diversification of an ancient gene family (rhs) through C-terminal displacement. BMC Genomics, 2009, 10, 584.	2.8	99
97	A fragile metabolic network adapted for cooperation in the symbiotic bacterium Buchnera aphidicola. BMC Systems Biology, 2009, 3, 24.	3.0	98
98	Synthesis of citrateâ€“ciprofloxacin conjugates. Bioorganic and Medicinal Chemistry Letters, 2009, 19, 1496-1498.	2.2	32
99	Furanose-specific Sugar Transport. Journal of Biological Chemistry, 2009, 284, 31156-31163.	3.4	27
100	Sialic Acid Mutarotation Is Catalyzed by the Escherichia coli Î²-Propeller Protein YjhT. Journal of Biological Chemistry, 2008, 283, 4841-4849.	3.4	55
101	Tripartite ATP-Independent Periplasmic Transporters: Application of a Relational Database for Genome-Wide Analysis of Transporter Gene Frequency and Organization. Journal of Molecular Microbiology and Biotechnology, 2007, 12, 218-226.	1.0	43
102	Sialic acid utilization by bacterial pathogens. Microbiology (United Kingdom), 2007, 153, 2817-2822.	1.8	436
103	Novel ligands for the extracellular solute receptors of two bacterial TRAP transporters. Microbiology (United Kingdom), 2006, 152, 187-198.	1.8	46
104	Escherichia coli K-12: a cooperatively developed annotation snapshot--2005. Nucleic Acids Research, 2006, 34, 1-9.	14.5	606
105	BuchneraBASE: a post-genomic resource for Buchnera sp. APS. Bioinformatics, 2006, 22, 641-642.	4.1	17
106	Conservation of Structure and Mechanism in Primary and Secondary Transporters Exemplified by SiaP, a Sialic Acid Binding Virulence Factor from Haemophilus influenzae. Journal of Biological Chemistry, 2006, 281, 22212-22222.	3.4	81
107	In vivo functional characterization of the Escherichia coli ammonium channel AmtB: evidence for metabolic coupling of AmtB to glutamine synthetase. Biochemical Journal, 2005, 390, 215-222.	3.7	89
108	An ATP-binding cassette-type cysteine transporter in Campylobacter jejuni inferred from the structure of an extracytoplasmic solute receptor protein. Molecular Microbiology, 2005, 57, 143-155.	2.5	72

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109	Sialic acid transport in <i>Haemophilus influenzae</i> is essential for lipopolysaccharide sialylation and serum resistance and is dependent on a novel tripartite ATPâ€independent periplasmic transporter. Molecular Microbiology, 2005, 58, 1173-1185.	2.5	120
110	EchoBASE: an integrated post-genomic database for Escherichia coli. Nucleic Acids Research, 2004, 33, D329-D333.	14.5	70
111	Purification of the Escherichia coli ammonium transporter AmtB reveals a trimeric stoichiometry. Biochemical Journal, 2002, 364, 527-535.	3.7	88
112	Mopping up transcription factors. Trends in Microbiology, 2002, 10, 65-66.	7.7	0
113	Membrane protein topology: phospholipids call the shots. Trends in Microbiology, 2002, 10, 310-311.	7.7	0
114	Membrane sequestration of the signal transduction protein GlnK by the ammonium transporter AmtB. EMBO Journal, 2002, 21, 536-545.	7.8	208
115	Removing repression: novel roles for solute transporters in regulating gene expression. Trends in Microbiology, 2001, 9, 58.	7.7	2
116	Helicobacter pylori retakes the acid test. Trends in Microbiology, 2001, 9, 360.	7.7	0
117	The tripartite ATP-independent periplasmic (TRAP) transporters of bacteria and archaea. FEMS Microbiology Reviews, 2001, 25, 405-424.	8.6	144
118	The tripartite ATP-independent periplasmic (TRAP) transporters of bacteria and archaea. FEMS Microbiology Reviews, 2001, 25, 405-424.	8.6	5
119	Membrane topology of the Mep/Amt family of ammonium transport proteins. Biochemical Society Transactions, 2000, 28, A94-A94.	3.4	0
120	Membrane topology of the Mep/Amt family of ammonium transporters. Molecular Microbiology, 2000, 37, 331-344.	2.5	113
121	Novel growth characteristics and high rates of nitrate reduction of anEscherichia colistrain, LCB2048, that expresses only a periplasmic nitrate reductase. FEMS Microbiology Letters, 2000, 185, 51-57.	1.8	15
122	The glnKamtB operon. Trends in Genetics, 2000, 16, 11-14.	6.7	119
123	Helicobacter takes the acid test. Trends in Microbiology, 2000, 8, 160-161.	7.7	1
124	New roles for nitrate reductases. Trends in Microbiology, 2000, 8, 15.	7.7	1
125	Completing the E. coli proteome: a database of gene products characterised since the completion of the genome sequence. Bioinformatics, 1999, 15, 860-861.	4.1	31
126	The periplasmic nitrate reductase fromEscherichia coli: a heterodimeric molybdoprotein with a double-arginine signal sequence and an unusual leader peptide cleavage site. FEMS Microbiology Letters, 1999, 174, 167-171.	1.8	34

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127	Competition between Escherichia coli strains expressing either a periplasmic or a membrane-bound nitrate reductase: does Nap confer a selective advantage during nitrate-limited growth?. Biochemical Journal, 1999, 344, 77.	3.7	35
128	Competition between <i>Escherichia coli</i> strains expressing either a periplasmic or a membrane-bound nitrate reductase: does Nap confer a selective advantage during nitrate-limited growth?. Biochemical Journal, 1999, 344, 77-84.	3.7	133
129	The periplasmic nitrate reductase from Escherichia coli: a heterodimeric molybdoprotein with a double-arginine signal sequence and an unusual leader peptide cleavage site. FEMS Microbiology Letters, 1999, 174, 167-171.	1.8	1
130	ESCHERICHIA COLI ON THE WWW. Letters in Applied Microbiology, 1998, 27, 122-123.	2.2	4
131	A Novel and Ubiquitous System for Membrane Targeting and Secretion of Cofactor-Containing Proteins. Cell, 1998, 93, 93-101.	28.9	446
132	Escherichia coli Kâ€•12 genes essential for the synthesis of c â€•type cytochromes and a third nitrate reductase located in the periplasm. Molecular Microbiology, 1996, 19, 467-481.	2.5	163
133	Understanding the Model and the Menace: a Postgenomic View of Escherichia Coli. , 0, , 21-48.		1